CLAIMS

1. A system for in vivo detection of H. pylori, the system comprising

an autonomous in vivo sensing device configured for sensing in vivo pH and for transmitting in vivo data to a receiving unit; and

an external receiving unit configured for indicating an in vivo pH about equal or larger than 5.5.

2. The system according to claim 1 wherein the sensing device is capable of covering most of a stomach body.

3. The system according to claim 1 wherein the sensing device includes an image sensor.

4. The system according to claim 1 wherein the sensing device includes an illumination source.

5. The system according to claim 1 wherein the sensing device includes pH indicator.

6. The system according to claim 5 wherein the pH indicator is a color changing indicator.

7. The system according to claim 6 wherein the pH indicator is configured to change color at a pH of about equal or larger than 5.5.

8. The system according to claim 6 wherein the pH indicator is attached to an optical window in the sensing device.

9. The system according to claim 6 wherein the pH indicator is immobilized within a sampling chamber in the sensing device.

10. The system according to claim 1 wherein the sensing device comprises at least one sampling chamber.

11. The system according to claim 1 wherein the sensing device comprises a radio frequency transmitter.

12. The system according to claim 1 wherein the sensing device comprises a power source.

13. The system according to claim 1 wherein the receiving unit is configured for receiving data transmitted from a stomach.

14. The system according to claim 1 wherein the receiving unit is configured for receiving radio frequency signals.

15. The system according to claim 1 wherein the receiving unit comprises a display configured for displaying transmitted in vivo data.

16. The system according to claim 15 wherein the display is configured for indicating an in vivo pH about equal or larger than 5.5.

17. A system for in vivo detection of H. pylori, the system comprising

an autonomous in vivo pH sensing device, said device comprising a transmitter;

an external receiving unit; and

a processor configured for identifying changes in pH over a predetermined threshold.

18. The system according to claim 17 wherein the predetermined threshold includes a pH change of about 2.5.

19. The system according to claim 17 further comprising a display.

20. The system according to claim 19 wherein the display is configured for indicating a change of pH over a predetermined threshold.

21. The system according to claim 17 wherein the pH sensing device comprises an imaging system.

22. A method for in vivo detection of H. pylori, the method comprising

sensing pH in at least one location proximate to a patient's stomach mucus; and

transmitting by radio frequency pH data to an external receiving unit.

23. The method according to claim 22 further comprising indicating a pH value which is about equal to or exceeds a predetermined threshold.

24. The method according to claim 22 wherein sensing pH is by imaging a color changing pH indicator.

25. The method according to claim 23 wherein the predetermined threshold is about 5.5.

26. The method according to claim 23 wherein indicating a pH value comprises displaying an indication.

27. A method for in vivo detection of H. pylori, the method comprising

inserting an autonomous pH sensing device into a patient's stomach;

positioning the patient to achieve substantially covering of the patient's stomach body; and

receiving in vivo data.

28. The method according to claim 27 wherein the pH sensing device comprises an imaging system.

29. The method according to claim 27 comprising receiving in vivo images of a patient's stomach.